CLAIM

1. A DNA of any one of:

(a) a DNA encoding a protein comprising the amino acid sequence of any one of SEQ ID NOs: 2, 4, and 6;

(b) a DNA comprising a coding region of the nucleotide sequence of any one of SEQ ID NOs: 1, 3, and 5;

(c) a DNA encoding a protein which comprises an amino acid sequence with a substitution, deletion, insertion, and/or addition of one or more amino acids in the amino acid sequence of any one of SEQ ID NOs: 2, 4, and 6, and which is functionally equivalent to a protein comprising the amino acid sequence of any one of SEQ ID NOs: 2, 4, and 6; and

(d) a DNA which hybridizes under stringent conditions to a DNA comprising the nucleotide sequence of any one of SEQ ID NOs: 1, 3, and 5.

2. A DNA encoding a fragment of a protein comprising the amino acid sequence of any one of SEQ ID NOs: 2, 4, and 6.

3. A protein encoded by the DNA of claim 1 or 2.

4. A vector comprising the DNA of claim 1 or 2.

5. A host cell comprising the DNA of claim 1 or 2, or the vector of claim 4.

6. A method for producing the protein of claim 3, wherein the method comprises the steps of:
culturing the host cell of claim 5, and
collecting the protein from the host cell or a culture supernatant thereof.

7. An antibody which binds to the protein of claim 3.

8. A method for identifying a ligand for the protein of claim 3, wherein the method comprises the steps of:
(a) contacting a candidate compound with the protein of claim 3 or a cell expressing the protein of claim 3; and
(b) determining whether the candidate compound binds to the protein of claim 3 or the cell expressing the protein of claim 3.

9. A method for identifying an agonist for the protein of claim 3, wherein the method comprises the steps of:
(a) contacting a candidate compound with a cell expressing the protein of claim 3; and
(b) determining whether the candidate compound generates a signal that is an indicator of activation of the protein of claim 3.

10. A method for identifying an antagonist for the protein of claim 3, wherein the method comprises the steps of:
(a) contacting a candidate compound with a cell expressing the protein of claim 3; and
(b) determining whether a signal as an indicator of activation of the protein of claim 3 is reduced as compared with a detection result obtained in absence of the candidate compound.

11. A ligand for the protein of claim 3, which can be identified by the method of claim 8.

12. An agonist for the protein of claim 3, which can be identified by the method of claim 9.

13. An antagonist for the protein of claim 3, which can be identified by the method of claim 10.

14. A kit to be used in the method of any one of claims 8 to 10, wherein the kit comprises at least one of:
(a) the protein of claim 3; and
(b) the host cell of claim 5.

15. An immunosuppressant, which comprises as an active ingredient an agonist for the protein of claim 3.

16. A therapeutic agent for an allergic disease or autoimmune disease, wherein the method comprises as an active ingredient an agonist for the protein of claim 3.

17. An immunopotentiator, which comprises as an active ingredient an antagonist for the protein of claim 3.

18. An anti-tumor or antiviral agent, which comprises as an active ingredient an antagonist for the protein of claim 3.

19. A DNA, which comprises at least 15 nucleotides and which is complementary to the DNA of claim 1 or 2, or to a complementary strand thereof.

20. A diagnostic reagent for a disease associated with an abnormality in the expression or activity of a gene encoding the protein of claim 3, wherein the diagnostic reagent comprises the DNA of claim 19 or the antibody of claim 7.